

### **REMARKS**

This is in full and timely response to the Office Action dated March 4, 2009.

Claims 1 and 4-10 are currently pending in this application, with claims 1 and 6 being independent.

*No new matter has been added.*

Reexamination in light of the following remarks is respectfully requested.

### **New non-final Office Action**

If the allowance of the claims is not forthcoming at the very least and a new grounds of rejection is made at least against the claims, then a **new non-final Office Action** is respectfully requested at least for the reasons provided hereinbelow.

### **Claim rejections**

Page 7 of the Office Action includes a rejection of claims 1 and 4-10 under 35 U.S.C. §101 as allegedly being directed to non-statutory subject matter.

This rejection is traversed at least for the following reasons.

While not conceding the propriety of this rejection and in order to advance the prosecution of the present application, the claims have been amended.

Withdrawal of this rejection is respectfully requested.

Page 10 of the Office Action includes a rejection of claim 1 under 35 U.S.C. §103 as allegedly being unpatentable over Japanese Application No. 08-167039 (Kobari) in further view of U.S. Patent No. 6,868,524 (Fushiki). A rejection of claim 4 is present on page 12.

Page 13 of the Office Action includes a rejection of claim 5 under 35 U.S.C. §103 as allegedly being unpatentable over Japanese Application No. 08-167039 (Kobari) in further view of U.S. Patent No. 6,868,524 (Fushiki) and U.S. Patent No. 5,724,072 (Freeman).

Page 15 of the Office Action includes a rejection of claims 6-7 and 10 under 35 U.S.C. §103 as allegedly being unpatentable over Japanese Application No. 08-167039 (Kobari) in further view of U.S. Patent No. 6,868,524 (Fushiki) and U.S. Patent No. 5,724,072 (Freeman).

Page 20 of the Office Action includes a rejection of claims 8-9 under 35 U.S.C. §103 as allegedly being unpatentable over Japanese Application No. 08-167039 (Kobari) in further view of U.S. Patent No. 6,868,524 (Fushiki) and U.S. Patent No. 5,724,072 (Freeman), and Japanese Application No. 09-185696 (Yoshimura).

These rejections are traversed at least for the following reasons.

**Claims 1 and 4-5** - Claims 4-5 are dependent upon claim 1. Claim 1 is drawn to a computer readable storage medium having encoded therein a computer program product for optimizing character string placing, the computer program product performing the following operations:

performing a horizontal placement to place a character string along a prospective guide line that is located at the center of prospective guide lines that are longer than the longest horizontal segment of the area of the character string, the prospective guide lines being drawn as virtual horizontal lines at regular intervals in a demarcated region.

**Claims 6-10** - Claims 7-10 are dependent upon claim 6. Claim 6 is drawn to a computer readable storage medium having encoded therein a computer program product for optimizing character string placing, the computer program product performing the following operations:

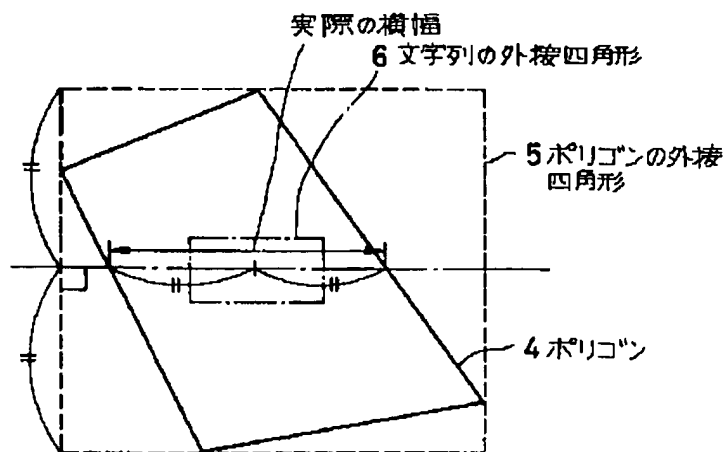
performing a first horizontal placement or a first tilting placement on all demarcated regions;

performing a pull-out placement on each demarcated region in which the first horizontal placement or the first tilting placement cannot be performed, assuming that the character string placed in the first horizontal placement or the first tilting placement has not been placed;

performing a second horizontal placement or a second tilting placement to place the character string placed in the first horizontal placement or the first tilting placement, and, when the placement cannot be performed because of the character string placed through the pull-out placement, nullifying the character string placed through the pull-out placement hindering the placement, thereby placing the character string through the second horizontal placement or the second tilting placement.

**Kobari** – Figure 3 of Kobari is provided hereinbelow.

文字列の傾きを水平にするかどうかの判別例



The machine translation of Kobari in paragraph [0015] arguably discloses that:

[0015]Next, as shown in drawing 3, inclination of a character string is determined about each polygon. As for 4, in drawing 3, a polygon circumscribed quadrangle and 6 are character string existence quadrangles a polygon and 5. Determination of inclination is performed as follows.

The machine translation of Kobari in paragraph [0017] arguably discloses that:

[0017](4a) The actual breadth of the character string circumscribed quadrangle 6 in the middle point of the lengthwise direction of the circumscribed quadrangle 5 of a polygon should have more than a "character string width + threshold."

The machine translation of Kobari in paragraph [0018] arguably discloses that:

[0018](4b) the middle point of the circumscribed quadrangle 6 of a character string -- the intersection of the middle point of the lengthwise direction of the circumscribed quadrangle 5 of a polygon, and the middle point of the actual breadth of the character string circumscribed quadrangle 6 -- inclination -- when it is level and you have arranged, full inclusion should be carried out at the polygon 4.

The machine translation of Kobari in paragraph [0025] arguably discloses that:

[0025](7c) If the arranged character string's existence circumscribed quadrangle 6 is included by the polygon 4, it will be decided that it will be the position.

The machine translation of Kobari in paragraph [0028] arguably discloses that:

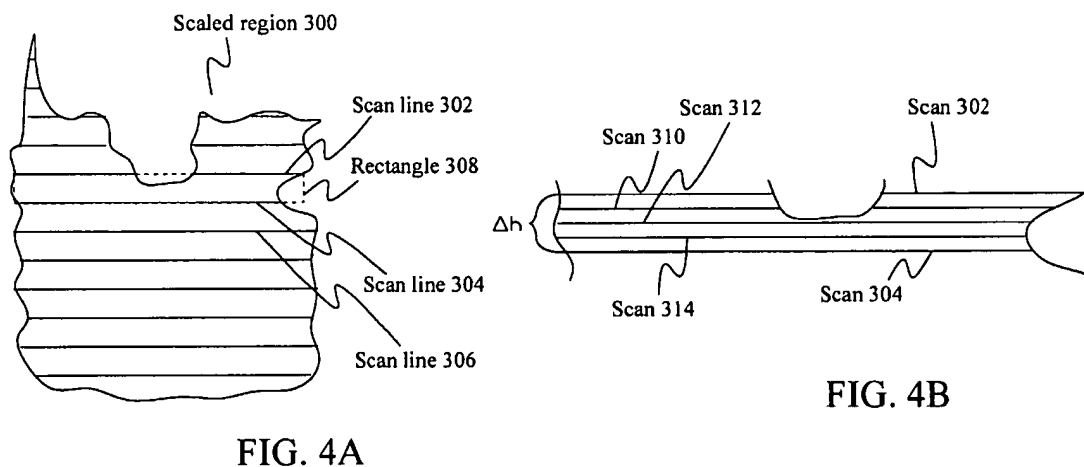
[0028]Although only inclusion relation was used for the inspection of the justification of a locating position in the above-mentioned explanation, it is possible to also perform the check of whether other elements overlap with the existence region of a character string. It becomes possible by dividing a polygon into plurality

and considering it to also perform arrangement of two or more character strings to one polygon based on inclination used as a standard.

However, Kobari *fails* to disclose, teach, or suggest a placement to place a character string along a prospective guide line that is located at the center of prospective guide lines that are longer than the longest horizontal segment of the area of the character string.

**Fushiki** - Page 13 of the Office Action contends that Fushiki et al. discloses producing scan lines to determine string placement (Fig. 4a).

In response, Figure 4 of Fushiki is provided hereinbelow.



Here, the paragraph beginning at column 5, line 1, of Fushiki arguably discloses that:

The transform of equation 1 is performed to set the scan interval used to generate a set of rectangles within the region. Specifically, when the GetRegionData API is used to build the text boxes, the API scans the region passed to it at fixed intervals along the y-coordinate. As such, if the height of the region is scaled down, the relative space between scans increases. Thus, by dividing the region's y-coordinate by the height of the text,  $\Delta h$ , equation 1 causes the scans to occur at locations along

the region that were separated by a distance of  $\Delta h$  before the scaling transform was performed. Examples of the scan lines that would be produced along a scaled down region 300 are shown as scan lines 302, 304, and 306 in **FIG. 4A**. Note that these scan lines represent the scans that would be produced if the y-coordinate of the region were only divided by  $\Delta h$ . The effects of multiplying the y-coordinate by  $n$  are discussed below.

The paragraph beginning at column 5, line 25, of Fushiki arguably discloses that:

The value  $\Delta h$  is selected because used alone it causes GetRegionData to return a set of rectangles that can accommodate the text to be written to the region. For example, if a region were passed to GetRegionData after being scaled down by  $\Delta h$ , GetRegionData would return a set of rectangles like rectangle 308 of **FIG. 4A**. Because of the scaling, rectangle 308 has a height equal to the text height,  $\Delta h$ , and can be used directly to write text within the region.

The paragraph beginning at column 5, line 25, of Fushiki arguably discloses that:

Under many embodiments of the present invention, the granularity factor,  $n$ , is added to the scaling function so that multiple scans are performed for each text box. Examples of these additional scans are shown as scans 310, 312, and 314 of **FIG. 4B**, which occur between scans 302 and 304 of **FIG. 4A**. As discussed further below, these additional scans improve the accuracy of the text boxes and reduce the chances that part of the region's perimeter will intersect text written within the region.

However, Fushiki fails to disclose, teach, or suggest a placement to place a character string along a prospective guide line that is located at the center of prospective guide lines that are longer than the longest horizontal segment of the area of the character string.

**Freeman** – Page 14 of the Office Action contends that Freeman et al. discloses placing the label into the geographic center (Column 8, lines 21-40).

In response, the paragraph beginning at column 17, line 9, of Freeman arguably discloses that:

A distance transform is the transformation of a raster representation of a region. Preferably, the distance transform is calculated in a distance transform skeleton array or "DTS array." After computing the distance transform, the value of each cell in the transformed region is the distance in the x and y directions, in number of cells, from the cell to the nearest region boundary. The minimum amount of space around any cell in the region is known, and hence the size of the region at that cell is also known. Since the distance transform is a function of the location of a cell given in terms of x and y, the distance transform can be plotted in the z-direction. The value of distance transform is then referred to in terms of a "height" above the x-y plane of the region. FIG. 6a shows a three-dimensional view of the distance transform 60 of a region 62, with the distance transform represented as a height or distance above the x-y plane. FIG. 6b shows a numeric representation of a distance transform 64 of a region 66.

The paragraph beginning at column 17, line 58, of Freeman arguably discloses that:

Whereas the skeleton is a series of cells in an array as shown in FIG. 8 the skeleton graph 90, shown in FIG. 9 is a directed graph consisting of vertices 92 (labeled as 1, 2, 3 and 4), edges 94, and points 96. A point is one cell in the skeleton of the region. An edge consists of all points on the skeleton which are adjacent to each other in the eight-connected sense, and which have only two neighbors. Edges begin and end at vertices; therefore, vertices may either have one neighbor or three or more neighbors. Vertices which have three or more neighbors, such as vertex 2, are junctions in the skeleton where three or more edges intersect.

However, Freeman fails to disclose, teach, or suggest a placement to place a character string along a prospective guide line that is located at the center of prospective guide lines that are longer than the longest horizontal segment of the area of the character string.

**Yoshimura** – Page 21 of the Office Action contends that Yoshimura et al. discloses replacement placement [0118].

The machine translation of Yoshimura in paragraph [0118] arguably discloses that:

[0118](c) Use a character code and a registration dictionary as input data in string conversion processing string conversion processing. In this processing, it is judged whether the character string applicable to the keyword of a registration dictionary is contained in a character code. If there is a character string contained, the applicable character string part of a character code will be changed into the abbreviation of a registration dictionary, and the character code after conversion will be outputted.

However, Yoshimura **fails** to disclose, teach, or suggest a placement to place a character string along a prospective guide line that is located at the center of prospective guide lines that are longer than the longest horizontal segment of the area of the character string.

- Thus, Kobari, Fushiki, Freeman, and Yoshimura, either individually or as a whole, **fail** to disclose, teach, or suggest *performing a horizontal placement to place a character string along a prospective guide line that is located at the center of prospective guide lines that are longer than the longest horizontal segment of the area of the character string, the prospective guide lines being drawn as virtual horizontal lines at regular intervals in a demarcated region, as in claim 1.*
- Moreover, Kobari, Fushiki, Freeman, and Yoshimura, either individually or as a whole, **fail** to disclose, teach, or suggest *performing a second horizontal placement or a second tilting placement to place the character string placed in the first horizontal placement or the first tilting placement, and, when the placement cannot be performed because of the character string placed through the pull-out placement, nullifying the character string placed through the pull-out placement hindering the placement,*



***thereby placing the character string through the second horizontal placement or the second tilting placement, as in claim 6.***

Withdrawal of these rejections and allowance of the claims is respectfully requested.

### **Official Notice**

There is no concession as to the veracity of Official Notice, if taken in any Office Action.

An affidavit or document should be provided in support of any Official Notice taken. 37 C.F.R. 1.104(d)(2), M.P.E.P. § 2144.03. See also, *Ex parte Natale*, 11 USPQ2d 1222, 1227-1228 (Bd. Pat. App. & Int. 1989)(failure to provide any objective evidence to support the challenged use of Official Notice constitutes clear and reversible error).

### **Extensions of time**

Please treat any concurrent or future reply, requiring a petition for an extension of time under 37 C.F.R. §1.136, as incorporating a petition for extension of time for the appropriate length of time.

### **Fees- general authorization**

The Commissioner is hereby authorized to charge any deficiency in fees filed, asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm).

The Commissioner is hereby authorized to charge all required fees, fees under 37 C.F.R. §1.17, or all required extension of time fees.

If any fee is required or any overpayment made, the Commissioner is hereby authorized to charge the fee or credit the overpayment to Deposit Account # 18-0013.

### **Conclusion**

This response is believed to be a complete response to the Office Action. Applicants reserve the right to set forth further arguments supporting the patentability of their claims, including the separate patentability of the dependent claims not explicitly addressed herein, in future papers.

For the foregoing reasons, all the claims now pending in the present application are allowable, and the present application is in condition for allowance. Accordingly, favorable reexamination and reconsideration of the application in light of the remarks is courteously solicited.

If the Examiner has any comments or suggestions that could place this application in even better form, the Examiner is requested to telephone Brian K. Dutton, Reg. No. 47,255, at 202-955-8753.

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Respectfully submitted,

By 

Christopher M. Tobin

Registration No.: 40,290

RADER, FISHMAN & GRAUER PLLC

Correspondence Customer Number: 23353

Attorney for Applicant